

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT 1887HHBRon	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/09696	International filing date (day/month/year) 01.09.2003	Priority date (day/month/year) 30.08.2002
International Patent Classification (IPC) or both national classification and IPC E21B34/04		
Applicant COOPER CAMERON CORPORATION et al.		



- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 27.02.2004	Date of completion of this report 03.09.2004
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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/09696**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-14 as originally filed

Claims, Numbers

1-19 as originally filed

Drawings, Sheets

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
 - ☐ the language of publication of the international application (under Rule 48.3(b)).
 - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority in written form.
 - ☐ furnished subsequently to this Authority in computer readable form.
 - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3-10, 13, 17, 18
	No: Claims	1, 2, 11, 12, 14-16, 19
Inventive step (IS)	Yes: Claims	
	No: Claims	1-19
Industrial applicability (IA)	Yes: Claims	1-19
	No: Claims	

2. Citations and explanations

see separate sheet

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POINT V

- V-1. The scope of protection of claim 1 only comprises a drive device. The remaining features: the operating element and all features interacting with it, such as the driving motor, drive train are covered by the scope of protection since the claim is directed at a drive device "for" adjusting an operating element (see also PCT Guidelines GL3 III-4.8). The subject-matter of claim 1 does not meet the requirements of clarity in the sense of Art. 6 PCT. A claim directed at a drive device comprising an operating element... would overcome the above mentioned deficiency.
- V-2. D1: DE3607899 discloses a drive device for adjusting an operating element (4) for a valve, a throttle, a blow-out preventer or the like, in particular in the field of gas or oil exploitation and/or production, the operating element being actively connected with at least one driving motor (9) via a drive train (10, 11, 12, 13, 14) and at least one transmission changing unit being arranged in the drive train for converting a revolution of the driving motor into a revolution of the operating element, and/or a revolution/linear motion converter (13, 14) being arranged for converting the revolution of the driving motor into a linear motion of the operating element, wherein the drive train comprises at least one essentially disk- or wheel-shaped revolution introducing device (12) actively connected with at least two drive shafts (11, 11') rotated by separate driving motors (9,9').
The subject-matter of claim 1 does therefore not meet the requirement of novelty in the sense of Art. 33(2) PCT.
- V-3. D1 also discloses the subject-matter of claims 2, 11, 12, 14-16, 19.
The subject-matter of claims 2, 11, 12, 14-16, 19 does therefore not meet the requirements of novelty in the sense of Art. 33(2) PCT.
D1 in combination with D2: US-3998108 discloses the subject-matter of claims 3-5, 7, 9, 17 since it discloses a self-locking worm gear (see col.1, l.15-17)
D1 in combination with D3: US-5370011 discloses the subject-matter of claims 10, 13, since it discloses the use of both a harmonic drive and a positioning sensor (see col.4, l.29-45 and col.5, l.29-33)
The subject-matter of claims 3-7, 9, 10, 13, 18 does not meet the requirements of inventive step in the sense of Art. 33(3) PCT.
The use of a double helical gearing, though not disclosed in the prior art is known

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to the skilled man and permits to reduce the forces applying on the drive shafts.
The subject-matter of claim 8 does therefore not meet the requirements of
inventive step in the sense of Art. 33(3) PCT.

V-4. Following defect is pointed out:

Rule 6.3b)i) and ii) PCT: incorrect two part form of independent claims with regard
to D1.